Amendments to the Claims:

1. (Previously Presented) A two-shaft vacuum pump comprising:

first and second rotor shafts,

an electric drive motor which drives one of the motor shafts, the drive motor being a synchronous motor with a motor rotor that is permanently excited, and

a synchronous motor power-limiting device which limits motor power (P_M) to a fixed maximum motor power (P_{Mmax}) in a limiting range above a fixed rated motor speed (n_N).

2. (Currently Amended) The two-shaft vacuum pump according to claim 1, wherein the power-limiting ~~means~~ device adjusts, in the limiting range, a phase angle between a magnetic field of the rotor and an electrical stator field to an angle other than 90°.

3. (Previously Presented) The two-shaft vacuum pump according to claim 1, wherein the power-limiting device reduces the stator current in the limiting range.

4. (Previously Presented) The two-shaft vacuum pump according to claim 1, wherein the power-limiting device adjusts, in the limiting range, the phase angle between the magnetic field of the rotor and at least one of the electrical stator field and the stator current as a function of the motor speed.

5. (Previously Presented) The two-shaft vacuum pump according to claim 1, wherein the driven rotor shaft driven by the drive motor is of cantilevered configuration and is supported without a supporting bearing on a motor-side end.

6. (Previously Presented) The two-shaft vacuum pump according to claim 1, wherein the motor rotor comprises a plurality of permanent magnets arranged on an outside surface of the motor rotor body.

7. (Previously Presented) The two-shaft vacuum pump according to claim 6, wherein the motor rotor comprises a rotor enclosure of a nonmagnetic material which externally encloses the motor rotor body and the plurality of permanent magnets.

8. (Previously Presented) The two-shaft vacuum pump according to claim 1, wherein on a stator side, a can of a nonmagnetic material is provided which gas-tightly seals the motor rotor with respect to the motor stator.

9. (Currently Amended) The two-shaft vacuum pump according to claim 8, wherein a pump cover holding the can and a stator casing ~~surrounding the stator casing~~ are integrally formed.

10. (Currently Amended) The two-shaft vacuum pump according to claim 7, wherein at least one of the plurality of permanent magnets of the motor rotor include rare earth elements.

11. (Currently Amended) A two-shaft vacuum pump comprising:

a pair of motor shafts;

a synchronous, permanently excited drive motor directly connected to one of the motor shafts; and

a phase angle adjusting ~~means for adjusting~~ device which (a) adjusts a phase angle between a motor rotor magnetic field and [[an]] at least one of a motor stator magnetic field and a stator current below a rated motor speed and (b) at the rated motor speed (n_N) fixes an applied motor power (P_{Mmax}) such that the motor speed (n) increases with decreases in motor torque (M_M).

12. (New) The two-shaft vacuum pump according to claim 1, wherein the power limiting device:

holds the motor power (P_M) constant, when the motor (n) speed reaches the rated motor speed (n_N); and

in response to an increase in gas pressure in the vacuum pump which reduces a motor torque (M_M), continues to hold the motor power (P_M) constant increasing the motor speed (n) above the rated motor speed (n_N).

13. (New) The two-shaft vacuum pump according to claim 1, wherein in the limiting range above the rated motor speed (n_N), the power limiting device holds the motor power (P_M).

14. (New) The two-shaft vacuum pump according to claim 1, wherein in the limiting range above the rated motor speed (n_N), the power limiting device permits the motor speed (n) to increase above the rated motor speed (n_N), such that in response to heating attributable to an increase in gas pressure in the vacuum pump, the motor speed increases and the motor torque (M_M) decreases.